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A systematic review of the literature concerning design considerations of homeliness in care homes.

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Abstract: The review demonstrates an international interest in the area of this study, from a diverse range of professional backgrounds, government policies and charitable organisations. This paper details the aim of the literature review, the review methodology and key findings grouped around eight emerging themes. It concludes that homeliness is a complex concept, which is highly individual; however there are common elements which will be of greater or lesser importance to an individual depending on their previous experience, present situation, and future aspirations.

Keywords: Homeliness, residential care, environment, design, older people, domesticity.

Introduction: Despite homeliness being studied across many disciplines, there is a lack of clarity in the guidance and literature as to what makes a care home ‘homely’, and how the designer should best approach the task. The default position appears to be that a place is ‘homely’ if it is not institutional and small in scale (Lundgren, [17], Calkins, [3]).

The need to revisit existing literature surrounding ‘homeliness’ is suggested by Moore ([21]:207) who argued for: ‘a move from psychological studies of personal and experiential aspects of a home to a sociological context sensitive focus on the experience and use of home’. Mallet [18] acknowledged that homeliness is a ‘multiconceptual’ issue, and is critical of many studies for being uni-disciplinary in nature, and focusing only on one issue. While Mallet refers to the ‘dream home’, ‘actual home’, ‘ideal home’ and ‘haven’, this author found that concepts from the literature included **home as space, home as place, design features, homeliness, home and identity** and **specific rooms**.

Aim of the Study: This review seeks to critically appraise the existing literature with regarding the design of ‘homely’ care homes, and to identify any conflicts and/or gaps in the existing body of knowledge.

Review Method: Systematic literature reviews endeavour to objectively identify, appraise and summarise all relevant published evidence pertaining to the subject or research question. It differs from a traditional review in that objectives, search terms and appraisal criteria are all made explicit, in order that the review can be replicated by others. Hawker, Payne, Kerr et al (2002) discuss the difficulties in using this methodology where the source material originates from a number of disciplinary backgrounds, as different disciplines did not use the same terminology consistently. This meant that the search process was iterative in nature, being constantly refined with each search. Garcia-Mira, et

al [7] reiterates these difficulties in examining the problems of integrating social sciences research into housing with architecture.

“[Second] there may be a conflict between the knowledge generation goals of science and the objective of application required by design professions; science defines the problem narrowly in order to secure knowledge generation such that this makes the knowledge so context specific that it may not be generalisable for practical application.”

They particularly highlight the varying assumptions each discipline brings regarding the relationship between people and environment. In addition, they introduced the problems of integrating knowledge gained from the user perspective into professional practice.

Search Strategy and methodology: This review involved a search of the electronic databases Cumulative Index to Nursing and Allied Health Literature (CINAHL), PsycInfo, SocIndex, Medline, www.architecture.com and www.artandarchitecture.complete via EBSCOhost. Key words used were home*, residential care, design, environment* with domestic* being substituted for home* in the latter two databases to better reflect the language used in the architectural literature. The wildcard * was used to capture all terms associated with the root, for example home* captured terms such as homely, homelike or homeliness. These terms were identified from key words in the early relevant studies, as most likely to identify relevant literature. The search was restricted to literature between January 1997 to January 2011, in order to capture the literature that had been produced following the development of the national care standards in the UK; and by age groups to exclude children, as whilst childhood has a strong influence on feelings of ‘being at home’, children have less autonomy in creating/choosing their physical environment (Garcia-Mira, et al [7]; Haddad, [8]).

A rapid, but reliable means of filtering the searches had to be developed, before a more in-depth assessment of the articles could take place. This took the form of identifying where the search terms appeared in the text, with the greater number of terms occurring and those recurring throughout the piece being considered worthy of further examination. The potential for recognising emerging themes was also considered a positive indicator. These two considerations overcame the diversity issues arising from the disparate source material. Those articles that were positively assessed were then synthesised to provide a narrative literature review. Assessment of the quality of a source considered peer review, methodology, and contribution to the evolving themes. Duplicate records were eliminated and, where the search object could not be sourced either electronically or physically, it was excluded. Several articles were not of sufficient quality as described by the Reviewers Manual (Joanna Briggs Institute, [13]); however these news items and opinion articles demonstrated a high awareness of the topic at ground level. A summary of results (Table 1: Breakdown of Results.) demonstrates an international interest in the subject. The findings are discussed under the themes that emerged from the literature.

Table 1: Breakdown of Results.

Source	Number	Area of Origin	Number
Design Based	24	Europe	31
Arts and Humanities	6	North America	46
Health and Social Sciences	61	Australasia	11
		Asia	1

Findings:

1 Domesticity: Januarius [12] studies photographs of miners houses in the 1950's in Belgium, to explore how the house became transformed into a home. The area was selected as it was a new development. Each cottage had a garden, for vegetable cultivation, promoting a green and healthy environment. Januarius [12] notes the rise in the purchase of consumer goods coming from increased economic prosperity, and questions the meaning of these goods, both in terms of how they added to the domestic nature of the house, and to feelings of identity. This is relevant to residential care settings where residents are encouraged to bring personal items with them, and standards require a homely environment. The photographs focus on the family unit in the living/dining rooms and kitchens of the house – the public areas of the private space. Comment is made on the decoration, floor covering, ornaments and furniture, as clues to the status of the families as read by the photographer. Araujo [1], explores pattern and its relationship to the home. She asserts that the discovery of pattern is inherent in the human experience of making. This applies to the making of home as much as to the production of a piece of needlework, or knitting. As the concept of home developed and spaces became more defined as private and public, comfort began to be introduced. This was in the form of cushions, carpets and other embellishments, which also added texture and colour to the home, and as an output of personal creativity. As pattern in decoration and furnishings can be used to stimulate or to soothe, so can the patterns of domestic activity. Repetitive tasks can be used to soothe, or to allow the mind to wander. Rice [26] describes the architectural features used in Bear Cottage, Australia to provide a domestic appearance appealing to children, while still providing the facilities required for hospice care. He details how the site is used to reduce the visible mass of the building, and how the entrance is scaled to domestic proportions. This is a distinct move away from much of the inclusive design guidance for public buildings, for example British Standards Institute (2009), which generally recommends prominent entrances that are clearly recognisable and afford shelter during access and egress. This level of detail concerning room adjacencies, colour palette and environmental control has not been found in the care home literature, only more general building shape and configuration. This perhaps reflects a devaluation of older people, or that children's hospice design is of more interest and prompts more innovative thinking.

2 Homeliness: Robertson and Fitzgerald [27] describe the creation of ambience within the care home as a complex interplay between the physical and social environments. Not only does this article highlight the interplay between the physical building and the management approach, it also highlights the 'environmental press' as described by Lawton (1994). Here the combined features of the buildings and management approaches led to very clear expectations of how both staff and residents would behave. Similarly, Hauge and Heggen [9] asked what characterised a homelike care home, and if the move to smaller units and private rooms made a difference to the daily routine of the residents. They define home as a private space, over which one has control, which is the predominant space for personal relationships and has a strong symbolic meaning for each individual. Like Hiedegger (1962), they describe the doorway as the boundary between home and the outside. Rather than seeing the home as a source of identity, they see its symbolism as an expression of independence.

Leith ([15]:319) introduces the popular opinion that "To some degree, the multiplicity in meaning of the concept of home appears to be related to societal differences between the genders, be they real or perceived."

This opinion stems from women fulfilling approved societal roles within the home, such as housewife, homemaker and mother. These roles may have given women a degree of control over the home, and for some a strong identity; but were devalued by men, whose status derived from position and income. This may be true for some generations of women. Mowl et al (2000) and Varley (2008) both explored men's attitudes in relation to the home as a dwelling place or family unit, but there appears to be a lack of studies focusing

specifically on male residents in care homes. It is possible that older men, having traditionally spent more time out of the domestic home, have a stronger need to feel connected to the outdoors (De Witt, Ploeg and Black, [5]) than women. This reinforces the stance that the grounds of the care home should be considered as both essential and integral components of the residential environment.

3 Home and Identity: Lipsedge [16], Lees-Maffei [14], Januarius [12], Olesen [23] and Araujo [1] all concur that the roles, routines, decoration and personal possessions used in the home contribute to a sense of identity and are used to express that sense of self to visitors to the public spaces of the home. Cipriani, Kreider, Sapaluk et al (2009) thought that familiar objects embodied a sense of identity, and were important in imbuing a sense of continuity and connectedness with the wider community. This was seen as particularly important at times of transition as their familiarity provided a sense of comfort while the residents settled into their new home, served as a means of preserving the person's identity and preserved a sense of control. One of the recommendations of the study was that staff should be taught to recognise the importance of these objects and use them in order to get to know the resident more quickly and in greater depth.

4 Home as Space: Garcia-Mira et al [7] describe the residential environment as critical to human well-being; as much of mankind's time is spent in buildings, the spaces they provide for different functions and the spaces between these buildings are important in imbuing a mental construct of belonging, security and well-being. When examining the physical environment in a residential setting for people with Alzheimer's disease, Danes (2002) suggests that in order for social functioning to be sustained, the layout of the physical space and room adjacencies must be carefully designed. While recommending that spaces for programmed activities should have visibility, variety and familiarity, it is the spaces for non-programmed activity that are considered most important.

De Witt, Ploeg and Black [5] carried out a qualitative study into the meaning of living alone for older women with dementia, using Heidegger's [11] philosophy to inform their interpretation of their findings. Heidegger proposes that space is a fundamental characteristic of the human existence which is felt and/or created through interaction with individuals and their surroundings. Although De Witt, Ploeg and Black [5] studied women living alone, their study is relevant to the care home environment, as it provides greater understanding of older people's conflicts between their fears surrounding remaining at home and their fears of having to move into care. A lack of connection with other residents can be considered as a lack of interaction with their surroundings which in turn influences their creation of space. Heidegger [11] used the metaphor of the threshold to describe the experience of living alone. It is the middle space between 'being here' and 'being there'. De Witt, Ploeg and Black [5] continue to explain how their findings related to four sub-themes of living on the threshold (see Figure1: Summary of Living on the Threshold).

Theme	Issues and Conflicts
<p><i>Living on the Threshold</i></p> <p>→ <i>Being here</i></p> <p>→ <i>Closed in</i></p> <p>→ <i>Opened up</i></p> <p>→ <i>Being there</i></p> <p>→ <i>Being out</i></p> <p>→ <i>Keeping out</i></p>	<p><i>Constant balancing of conflicts</i></p> <p><i>Comfort v. Anxiety</i></p> <p><i>Isolation v. security</i></p> <p><i>Connection without contact</i></p> <p><i>Failure v. Security</i></p> <p><i>Connection v. isolation</i></p> <p><i>Threat avoidance</i></p>

Figure 1: Summary of Living on the Threshold

6 Home as Place: Rowles [28] states that the **spaces in our** life are given meaning as they become the **places of our life**, and, at the same time meaning becomes embedded in place. He asserts that where each person is currently is understood in terms of where each person has been and is going. There are several component parts involved in this understanding:

- The way in which each person uses their environment.
- Awareness of the environment.
- Emotion.

The difficulty of defining home is discussed by Fitzgerald and Robertson [6] when exploring the places and non-places of residential homes in New Zealand. Home was found to be an ambiguous term by the participants as they needed clarification as to whether questions were related to the care home or 'my home'. For some, home was related to location for example rural versus urban, while for others home was more concerned with the people and objects that had constituted home wherever the location. The two care homes involved in the study were of different design and ambience, one viewed as homelike (older, eclectic mix of buildings, highly personalised) and the other as hotel-like (new-build, corporate furnishings). Each provoked different behaviours, but also the residents expressed satisfaction with each. This was especially true with regard to privacy; those living in the hotel-style home discussed staying behind closed doors much of the time, while those in the homelike home seemed to recognise that there were more nuanced differences in privacy between 'home' and an institution.

Fitzgerald and Robertson ([6]:56) describe the criteria for a non-place as being solitude, a lack of history which causes loss of identity, a place to which there are admission criteria and a place in which the range and form of interactions used differ from the norm. "Solitude was certainly one aspect of life which the interviewees mentioned frequently with the comment that relationships with other residents were no longer so important and were even problematic in various ways. "The potential for a care home to become a non-place is therefore evident. In accepting a potential non-place as a residence it is suggested there has to be some emotional compensation. In this study of New Zealanders, this took the form of a feeling of safety and perceived family approval. The strategies that were employed in the homelike home to prevent it becoming a non-place included an eclectic mix of furnishings and decor, use of personal possessions; an informal relationship between staff and residents and a mutually supportive attitude between residents.

7 Specific Rooms: Olin and Jansson [24] suggest that the private domains of group living have been considered so important in recent years that the value of common areas has become both undervalued and largely ignored. The authors remark that home life provides an arena for social activities as well as for privacy, and therefore these common areas must have impact on people's feelings of connectedness and sense of security. They classify space into four categories: public, half-public, half private and private. These are defined by the control of access to, and freedom of movement within, these spaces. This article demonstrates how three aspects of the environment combine to create very different experiences for the resident; there is no suggestion of one being better than the other. It also demonstrates the power imbalance in the relationship between the staff and residents.

Nagy [22] summarises design approaches and post-occupancy evaluations of kitchens in residential homes for people with Alzheimer's disease but which also promote inclusive living. The kitchens are designed to support the seven goals, the first two of which are given here:

1. Provide familiar and domestic features to promote comfortable home-like feelings and interactions between residents, staff, families, and visitors.

2. Provide areas and features for individual use and personalisation to enable residents to control, occupy, and be at home in their own spaces.

Post-occupancy evaluations revealed that kitchens had to be large enough to allow staff to be doing paperwork alongside residents, and had to have immediate access to living/dining areas. This facilitated spontaneous interactions to take place, however lack of staff offices meant that a staff rest room had to be provided for breaks. Direct access to a porch/garden was also desirable. Nagy [22] claims that these post-occupancy evaluations demonstrated a slowing in the progression of the disease, but no further information was provided as to how this claim was calculated.

In an earlier study McDaniel, Hunt, Hackes et al [20] carried out a case study investigation into the design of the dining room for residents with Alzheimer's disease. They compared two dining rooms in the same facility with particular regard to the effects of light and noise on nutritional intake. Although the noise levels were higher, and the lighting levels lower, nutritional intake was higher in the smaller unit. Recommendations were made to improve the lighting and noise levels in both areas; however it appears that the size of the environment had the most impact.

8 Design Features in the Care Home: Parker, Barnes, McKee et al, (2004) reiterate the importance of good design for care home environments and discuss the core difficulties for designers researching design considerations in their Design in Caring Environments Study. These include:

- Lack of inclusion on the needs of frail older people in the academic curricula of architects and designers,
- Lack of input to the research from building users,
- Lack of post-occupancy evaluation of buildings, resulting in a lack of feedback to architects, planners and designers, and
- Constraints on research methodology.

Calkins [3] in a review of the literature concerning long-term care design since 2002, supports the findings of Parker, Barnes, McKee et al, (2004), regarding size of care homes from the viewpoint of activities of daily living (ADL) and quality of life (QoL) outcomes. She also attempts to address one of the constraints in research methodology by suggesting common definitions of the terminology used to describe different design models: unit, pod, cluster, household and neighbourhood. Although agreeing these smaller units have better outcomes for friendship, mobility and a lower incidence of anxiety and depression, she also reports that there is a higher incidence of aggression but lower use of restraint in these units. Van Hattis, Curyto, Calkins et al [31] used building configuration to examine well-being and activity, as opposed to social density. Calkins [3], suggests their classification of hallway-based, open-plan or mixed design, particularly when considered alongside size, better facilitates comparison of similar sized facilities.

As Rowles [28] highlighted, way finding is an important feature in reducing stress and distress. Calkins [3], reviewed three studies, most of which focused on signage. There is agreement that signage or landmarks are the most useful way finding features providing that they are suitably positioned, however there is a lack of agreement over the use of pattern and other 'homely' décor. While this is seen as helpful in differentiating areas, there is evidence that some patterns can be viewed as barriers, and therefore must be used with caution.

The review of studies of lighting and its effect on sleep, agitation and engagement in activity again revealed a lack of consensus. This again may be due to differences in study objectives and design. Where agreement has been reached is in the benefits of having higher lighting levels to prevent falls.

Two studies were found relating to carpet as a floor covering. Carpets are often recorded as a source of falls, although this frequently appears to be due to maintenance issues, and while they can contribute to the homelike quality of a care space, add to noise reduction, and provide a softer surface for falling on, they can also cause drag resistance for those residents using mobility equipment. Another potential benefit of carpeting is the low reflectivity value, thereby preventing pools of light or glare on the floor surface that may be misinterpreted as wet or slip hazards. Dickinson, Shroyer, Elias et al (2001) found that balance in healthy older adults was not significantly affected by the use of carpet and pad. Perrit, McCune and McCune [25] examined the effect of texture and pattern on walking speed and incidents in people with Alzheimer's disease. Carpets having least detrimental effects had small motifs with low colour contrast, and loop-level texture. No literature was found reporting the preferences of care home residents with regard to floor coverings.

Calkins [3], includes a review of studies concerning both dining rooms and bedrooms, however many of these measured interventions which were concerned with social density, lighting levels and the use of colour and contrast rather than room specific features. She also raises the point that it is inadequate to describe somewhere as 'homely' by virtue of describing it as non-institutional.

It could be argued that many of the outcomes of the above studies place more emphasis on safety, rather than homeliness: few domestic properties use signage, or concern themselves consciously with carpet and lighting levels other than on a personally pleasing aesthetic basis.

8 The Outdoors as Part of the Home: Bengtsson and Carlsson [2] support Cross [4] in her assertion that it is a designer's duty to make places beautiful and attractive as this encourages both the use of, and attachment to, these places. They used focus groups with staff to explore the use of the outdoors by the residents of three nursing homes in Sweden. Staff were selected for their knowledge of residents with a diverse range of abilities, as much of the current design guidance centres on facilities for those residents with dementia. Two main themes and ten sub-themes were found relating to the design and content of the outdoor environment. As the climate in the south of Sweden is not dissimilar to Scotland, the same issues arose surrounding the need for shelter from both wind and rain, as well as an expression of enjoyment at just being able to sit with one's eyes shut and enjoy the sun. Familiarity was a theme in its own right, but also contributed to the theme of security: the grounds or patios of two of the homes were both familiar to the residents but also were situated in close proximity to the access/egress points of the units. Staff commented that residents did not need to be far from the home to feel 'away': perhaps suggesting these residents did feel at home here as they were happier remaining close to the threshold as proposed by Hiedegger (1962). Access to surrounding life was the second theme to emerge, which maps well to the 'being out' and 'opened –up' components of the study by De Witt, Ploeg and Black [5] Apart from enjoying the sensory aspects of being outdoors, staff found residents enjoyed being able to see the wider activity in the neighbourhood and that the changing flora stimulated both interaction and reminiscence. Staff also perceived that visitors felt more at ease in the grounds, a more private place than the communal living areas. Aware of the importance of the outdoors, Stigsdotter and Grahn [30] explore the concept of healing gardens from the theoretical perspective of different disciplines, and from the user perspective. Similar to the studies of home, these researchers begin by exploring the concept of a garden. The garden, they report, can be conceptualised as a room or rooms, surrounded by a perimeter, with walls floor and ceiling. As with the indoor

environment these aspects can be clearly defined, of different materials and add to a feeling of safety and security. What is deemed important is that the garden is made from living materials which change from season to season, as opposed to hard landscaping. This is thought to foster an appreciation of life, and of hope.

Conclusion

This literature review has demonstrated the complexity of defining home, and the subsequent difficulty of creating a homely environment in care homes. There is a vast diversity in both the literature found and the disciplinary backgrounds of the researchers. Unfortunately much of the research is not of sufficient quality, as defined by the Joanna Briggs Institute [13]. Several of the studies were inconclusive; however there does appear to be some consensus across the different disciplines as to some important features shared by both design for dementia and inclusive thinking. These include size, with smaller being better; it is recommended therefore that large facilities should be sub-divided into smaller units of not more than 12 beds. Similarly, the provision of a garden is highly valued, however this should be incorporated into the design of the building, and include seating and shelter. The provision of natural light, and a view of activity from windows, is also a well-regarded feature. Also highlighted was the difficulty of involving residents in the research, even though much of the research found was interview or survey based. Quality of life studies and environmental screening tools also featured strongly. A future study needs to be carried out to investigate these screening tools further; the number of these alone suggests dissatisfaction in the research community with what is available.

Over and above the physical environment the literature supports the need to have clear selection criteria for people choosing to move into a care home, and suggests that this transition is more likely to be successful if the older person is actively involved in both decision-making and selection. Similarly emotion is highly influential in whether or not an older person feels at home in a residential home and more positive emotions towards the residential home can be supported by this involvement, the preservation of personal routines and social networks, and the personalisation of their surroundings.

Rybczynski (1986) proposed an onion theory of domesticity, revealing layer on layer of meaning, and which, when dissected lost its overall form. An alternative is a kaleidoscope model, as used by Mausner [19] who carried out a content analysis of fourteen interviews when developing a defining model of the concept of the natural environment. As she found people made individualised links between her emergent themes, and attributed different meanings to the same element, it is likely that the kaleidoscope model can be used successfully in this study. The three reflective mirrors of the kaleidoscope being the past experience of home, the ideal of home and the actual lived experience of home. The key features of the environment identified by the participants will act as the pattern pieces, varying in placement and size to represent the complexity and individuality of people's perceptions of home. The study will potentially inform the design of the physical environment, as well as standards and practice.

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